# What is claimed is:

1. A compound of formula I below, and physiologically acceptable salts, comprising:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R", R" and R"" each independently comprises Y- $D_1$ - $D_2$ - $T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

- 2. The compound of claim 1 wherein only one of R", R" and R" comprises Y- $D_1$ - $D_2$ - $T_2$  and the others of R", R" and R" each independently comprise H, halogen, alkyl, alkoxy or a substituent group.
- 3. The compound of claim 1 wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises  $C(CH_3)_2$ ,  $CH_2$  or  $CH(CH_3)$ ,

 $\mathsf{D}_1$  is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

# 4. The compound of claim 1 wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises O, NH or N-alkyl,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

# 5. The compound of claim 1 wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present comprises C=CH or C≡C,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

 $T_2$  is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

# 6. The compound of claim 1 wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and

R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises 0 to 1 of a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms.

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

 $T_2$  is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

- 7. The compound of claim 1 wherein Ar comprises an aromatic ring having 5 or 6 ring members or a heteroaromatic ring having 5 or 6 ring members.
- 8. The compound of claim 1 wherein Ar comprises one of the structures:

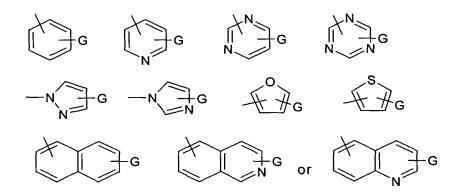
and,

the Ar aromatic ring structure comprises 0 to 3 heteroatoms as ring members;

R1, R2, R3, R4 and R5 each independently comprise H, OH, NH<sub>2</sub>, halogen, N<sub>3</sub>, NO<sub>2</sub>, NCS, C(halogen)<sub>3</sub>, CHO, OAc, OCH<sub>3</sub>, OC<sub>2</sub>H<sub>5</sub>, CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CN, C(=O)CH<sub>3</sub>, COOH, COOCH<sub>3</sub>, COOC<sub>2</sub>H<sub>5</sub>, COOCH(CH<sub>3</sub>)<sub>2</sub>, NHCOCH<sub>3</sub>, SCH<sub>3</sub>, SC<sub>2</sub>H<sub>5</sub>, NHCH<sub>3</sub>, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C<sub>2</sub>H<sub>3</sub>, ethynyl, alkoxy, alkylmercapto, alkylamino, di-alkylamino, alkylsulfinyl, alkylsulfonyl or methylene dioxy or a substituent group.

9. The compound of claim 1 wherein Ar comprises 1-, 2- or 3-pyrrolidinyl, 1-, 2-, 3- or 4-piperidinyl, 1-, 2- or 3-morpholinyl, 1-, 2- or 3-thiomorpholinyl, 1-, 2- or 3-azetidinyl, 1-, or 2-piperazinyl, 2- or 3-tetrahydrofuranyl; or any above group substituted on any available ring carbon thereof by alkyl; or any above group unsubstituted on one or more nitrogen atoms, or any above group substituted on one or more nitrogen atoms independently by an alkyl, benzyl, lower-alkoxybenzyl or benzhydryl group; adamantyl; a carbocyclic ring, a substituted carbocyclic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterobicyclic ring, a substituted polycyclic ring, a heteropolycyclic ring or a substituted heteropolycyclic ring.

# 10. The compound of claim 1 wherein Ar comprises:



G comprises H, OH, NH<sub>2</sub>, halogen, N<sub>3</sub>, NO<sub>2</sub>, NCS, CF<sub>3</sub>, CHO, OAc, OCH<sub>3</sub>, OC<sub>2</sub>H<sub>5</sub>, CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CN, C(=O)CH<sub>3</sub>, COOH, COOCH<sub>3</sub>, COOC<sub>2</sub>H<sub>5</sub>, COOCH(CH<sub>3</sub>)<sub>2</sub>, NHCOCH<sub>3</sub>, SCH<sub>3</sub>, SC<sub>2</sub>H<sub>5</sub>, NHCH<sub>3</sub>, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C<sub>2</sub>H<sub>3</sub>, ethynyl, alkoxy, alkylmercapto, alkylamino, di-alkylamino, alkylsulfinyl, alkylsulfonyl or methylene dioxy.

11. A pharmaceutical preparation comprising a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R", R" and R"" each independently comprises Y- $D_1$ - $D_2$ - $T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R"" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

- 12. The pharmaceutical preparation of claim 11 wherein only one of R", R" and R"" comprises  $Y-D_1-D_2-T_2$  and the others of R", R" and R"" each independently comprise H, halogen, alkyl, alkoxy or a substituent group.
- 13. The pharmaceutical preparation of claim 11, wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises  $-Y-D_1-D_2-T_2$ ,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C $\equiv$ C, CH<sub>2</sub>, CH(CH3), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

14. A method of stimulating a cannabinoid receptor in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R", R" and R"" each independently comprises Y- $D_1$ - $D_2$ - $T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms.

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

# 15. The method of claim 14 wherein:

R''' comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R'''' comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R'' comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C $\equiv$ C, CH $_2$ , CH(CH3), C(CH $_3$ ) $_2$ , a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

16. A method of selectively stimulating CB2 cannabinoid receptors in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

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R", R" and R"" each independently comprises  $Y-D_1-D_2-T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms:

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

# 17. The method of claim 16, wherein:

R" comprises H, halogen, C(halogen)3, lower alkyl or alkoxy;

R"" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH3), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

18. A method of treating a condition comprising administering to an individual or animal having the condition a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R", R" and R"" each independently comprises  $Y-D_1-D_2-T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms.

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R''' is hydrogen, and R'''' is hydrogen, then R'' can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

# 19. The method of claim 18, wherein:

R" comprises H, halogen, C(halogen)3, lower alkyl or alkoxy;

R'''' comprises H, halogen,  $C(\text{halogen})_3$ , lower alkyl or alkoxy; and R'' comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C $\equiv$ C, CH<sub>2</sub>, CH(CH3), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms.

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

 $T_2$  is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

20. A method of providing a physiological response in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R", R" and R"" each independently comprises Y- $D_1$ - $D_2$ - $T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms:

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

# 21. The method of claim 20, wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy;

R"" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and

R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C $\equiv$ C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring

having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.

22. A method of treating a condition selected from central and peripheral pain, neuropathy, neurodegenerative diseases including multiple sclerosis, Parkinson's disease, Huntington's chorea, Alzheimer's disease; mental disorders such as schizophrenia and depression, endotoxic shock, hypotensive shock; or of modulating appetite; or of modulating the immune system; or of reducing fertility; or of treating diseases associated with motor function such as Tourette's syndrome; or of treating inflammation; or of providing neuroprotection; or of suppressing memory; or of producing peripheral vasodilation; or of treating epilepsy, glaucoma, nausea associated with cancer chemotherapy or nausea associated with Aids wasting syndrome comprising administering to an individual or animal having the condition a therapeutically effective amount of at least one compound at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring comprising at least one substituent group, a heteroaromatic ring, a heteroaromatic ring comprising 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring comprising at least one substituent group;

R comprises H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' comprises H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> or NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R", R" and R"" each independently comprises  $Y-D_1-D_2-T_2$ , H, halogen, alkyl, alkoxy or a substituent group,

Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic, a tricyclic ring, an aromatic or heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, or a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R''' is hydrogen, and R'''' is hydrogen, then R'' can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or OCH<sub>3</sub>.

# 23. The method of claim 22, wherein:

R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; R" comprises H, halogen, C(halogen)<sub>3</sub>, lower alkyl or alkoxy; and R" comprises -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y comprises Y is optionally present and if present comprises O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH3), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members or a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present comprises alkyl,

D<sub>2</sub> comprises H, an alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring or a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present comprises an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen or a substituent group.